



DFW/AF

Application/Control Number 10/647,618

Art Unit:3634

**IN THE UNITED STATES PATENT AND TRADEMARK**

In re Application of:  
SUSAN G. KATZ

ART UNIT: 3634

SERIAL NO. 10/647,618

EXAMINER: Blair M. Johnson

FILED: August 25, 2003

FOR: A DECORATIVE EXTERNAL  
CURTAIN ASSEMBLY AND  
SYSTEM FOR EXTERIOR  
DECORATION

: I hereby certify that this correspondence  
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Susan G. Katz  
Susan G. Katz

**SUPPLEMENT-APPEAL BRIEF**

HONORABLE COMMISSIONER FOR PATENTS AND TRADEMARKS  
WASHINGTON, D. C. 20231

SIR:

The following Supplement-Appeal Brief is respectfully submitted in response to the Examiner's Notification of Non-Compliant Appeal Brief dated September 22, 2005 and pursuant to 37 C.F.R. § 41.37 in connection with the above-identified application in response to the Examiner's final rejection of Claims 1, 3 and 6-21 dated December 13, 2004.

REAL PARTY IN INTEREST

The Undersigned Appellant, Susan G. Katz, hereby states that she is the Appellant and only real party in interest in the above-identified Application.

RELATED APPEALS AND INTERFERENCES

There are no related Appeals and Interferences in connection with the above-identified Application or Appellant.

STATUS OF THE CLAIMS

Claims 1, 3 and 6-21 currently stand in the case. Original Claims 2, 4 and 5 have been cancelled. No claims currently standing in the case are objected to, however, Claims 1, 3 and 6-21 stand finally rejected under 35 USC 103(a) as unpatentable over Hillstrom in view of Phillips. It is the rejection of Claims 1, 3, and 6-21 based on Hillstrom in view of Phillips from which Appellant appeals.

STATUS OF AMENDMENTS

There are no Amendments filed subsequent to final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention, as defined by Claims 1, 3 and 6-12, relates to both a decorative external curtain assembly for applying fabric material to an external facade of a building and a system of exterior decoration. According to Independent Claim 1, the external curtain assembly (11) includes: 1) a sheet of fabric material (19), 2) complementary engageable fastener strips (21) for respectively fastening the fabric material (19) to the external facade (15) of the building (17); and 3) an attachment arrangement (See page 8, lines 2-10 of the Substitute Specification) for attaching one of the complementary engageable fastener strips (21a) to the building (17) and another of the complementary engageable fastener strips (21b) to the fabric material (19). The complementary engageable fastener strips (21) are made of a pair of Velcro strips (21a, 21b), one strip having

co-acting miniature hooks formed of a relatively rigid filament material and another of the strips having loops also formed of a relatively rigid filament material which engage one another to form a bond between the building (17) and the fabric (19) that is broken by pulling apart the pair of strips (21a, 21b). The complementary engageable fastener strips (21a, 21b) fasten the fabric material (19) to the external façade (15) along an entire edge of the fabric material (19).

As recited by Claims 13-21, the present invention also relates to a system of exterior decoration. According to Independent Claim 13, the system comprising: 1) a building (17) having an external façade (15), 2) at least one decorative external curtain assembly (19), 3) complementary, engageable fastener strips (21a, 21b) for attaching the decorative external curtain assembly (19) to the external facade (15) of the building (17), and 4) attachment means (See Page 8, lines 2-10 of Substitute Specification) for respectively attaching one of the complementary engageable fastener strips (21a) to the decorative external curtain assembly (19) and another of the complementary engageable fastener strips (21b) to the external façade (15) of the building (17).

As recited by dependent Claim 21, which depend directly from Claim 13, the complementary engageable fastener strips (21) are made of a pair of strips (21a, 21b), one strip (21a) having co-acting miniature hooks formed of a relatively rigid filament material and another of the strips (21b) having loops also formed of a relatively rigid filament material which engage one another to form a bond between the building (17) and the fabric (19) that is broken by pulling apart the pair of strips (21a, 21b); and wherein the complementary engageable fastener strips (21a, 21b) fasten the fabric material (19) to the external façade (15) along an entire edge of the fabric material (19).

The Appellant is requesting review of the final rejection of Claims 1, 3 and 6-21 under 35 USC 103(a) as unpatentable over Hillstrom in view of Phillips.

In view of the foregoing final rejection and assertions of the Examiner, Appellant sets forth the following Grounds for Appeal:

1) NO SUGGESTION OR TEACHING IN THE PRIOR TO COMBINE REFERENCES

It is clear to Appellant that the Examiner has engaged in hindsight reasoning to improperly reject Claims 1, 3 and 6-21 under 35 USC 103 by relying on the substitution of Hillstrom's heavy duty spring loaded metal frame device for fastening the exterior banner of Hillstrom to the exterior of a building where such exterior banners "are subjected to high winds and other harsh conditions" with the Velcro fastener arrangement of interior curtain of Phillips which is not subject to such "harsh conditions."

2) IMPROPER HINDSIGHT REFERRAL TO TEACHINGS OF APPELLANT'OWN APPLICATION TO JUSTIFY COMBINATION OF HILLSTROM AND PHILLIPS

In Examiner's Response to Arguments in the Final Rejection, the Examiner improperly relies on the teachings of the present Application as proof that: "... the fastener of Phillips is the same fastener used by Appellant and consequently capable of being used outdoors."

3) FAILURE TO PROPERLY CONSIDER OR REBUT RULE 132 AFFIDAVIT

The Examiner has failed to properly consider or rebut Appellant's Rule 132 Affidavit in the final rejection of Claims 1, 3 and 6-21 wherein Appellant has provided evidence that the Phillips reference fails to teach or suggest to one of ordinary skill in the art that Velcro fasteners can be used to attach an

external curtain to the exterior façade of a building because exterior curtains are subject to wind and rain forces that do not in anyway effect a curtain located in the interior of a building, as disclosed by Phillips, and that the general opinion in the art is that Velcro would form too weak a bond to effectively hold an exterior curtain to the external façade of a building when harsh environmental conditions such as wind and rain are encountered by an exterior curtain.

#### 4) INVENTION AS A WHOLE AND PROBLEM SOLVED NOT CONSIDERED

The Examiner has failed to consider the invention as a whole by mis-characterizing the problem solved by Appellant's Invention in fantasizing that if "Hillstrom is concerned with providing a changeable system for supporting banners, signs, etc. and if he were looking for a fastener that would render at the banner more easily changeable, he would naturally look to other fabric fastening means and *would not limit himself to only outdoor fastening means* [emphasis added by Appellant]."

#### ARGUMENTS

##### 1) NO SUGGESTION OR TEACHING IN THE PRIOR TO COMBINE REFERENCES

In the Final Rejection of Claims 1, 3 and 6-21 under 35 USC 103(a) as unpatentable over Hillstrom in view of Phillips, the Examiner asserts that, while the banner attached to the exterior of a building as disclosed by Hillstrom does not show hook and loop fasteners, Phillips shows that hook and loop fasteners for mounting decorative fabrics is well known and that it would be "obvious to replace the mounting means of Hillstrom with that of Phillips so as to render changing the banner easier," with the "size of the hook and loop strip [being] clearly an obvious design choice depending on the size of the banner."

In response to Appellant's argument that the cited prior art fails to teach or suggest the use of Velcro in the exterior

application, as recited in the presently rejected Claims, the Examiner states in the Examiner's Response to Arguments in the Final Rejection that: "... the fastener of Phillips is the same fastener used by Appellant and consequently capable of being used outdoors."

The Examiner further states in the Final Rejection that: "... there is nothing in the description of the fastener of Phillips that would suggest that it is not usable outdoors. Hillstrom is concerned with providing a changeable system for supporting banners, signs, etc. and if he were looking for a fastener that would render at the banner more easily changeable, he would naturally look to other fabric fastening means and *would not limit himself to only outdoor fastening means* [emphasis added by Appellant]. If an interior fastener were not 'heavy' enough for external applications, merely providing a stronger more durable, etc. version of the fastener, in this case Velcro, would have been obvious."

Appellant agrees with the Examiner that Hillstrom fails to disclose the use of hook and loop fasteners for attaching a banner to the exterior of a building. However, it is clear to Appellant that the Examiner has engaged in unacceptable hindsight reasoning in substituting the Hillstrom attachment arrangement, i.e., a heavy duty spring loaded metal frame device, with the attachment arrangement of Phillips, i.e., hook and loop fasteners (18, 20, 22, 28). In this regard, the heavy duty spring loaded metal frame device for fastening the exterior banner of Hillstrom to the exterior of a building is of a very robust nature because such exterior banners "are subjected to high winds and other harsh conditions" (see Column 1, lines 30-35 of Hillstrom). As further noted by Hillstrom at Column 1, lines 60-64, the purpose of his device is to provide a display device which "firmly and securely retains and displays banner-type signs and messages **regardless of the severity of the external weather conditions.**"

In contra-distinction to the Hillstrom patent, which relates to an arrangement for attaching an exterior banner to the exterior of a building, the Velcro fasteners (18, 20, 22, 28) of Phillips are used to attach an interior curtain to the interior of a building where such interior curtains are not subject to such "harsh conditions" as those encountered by the Hillstrom patent.

As stated in In re Fine, 5 USPQ2nd, 1596, the PTO has to satisfy its burden of establishing a prima facie case of obviousness by showing some objection teaching or generally available knowledge that would lead one skilled in the art to substitute the Velcro fastening arrangement of the interior curtain of Phillips for the heavy duty spring loaded metal frame fastening arrangement of the exterior banner of Hillstrom where such banner must be securely fastened regardless of the severity of the external weather conditions. However, such teaching or suggestion is absent.

As stated by Hillstrom at Column 1, line 19-24, the "desire object" of the Hillstrom invention is to accomplish the "secure and aesthetic placement of banner-type advertising on building and walls surfaces... [w]here the signs are to be positioned outdoors and subjected to harsh environmental conditions." Hillstrom further notes that "known devices and systems frequently prove unreliable."

However, the Velcro attachment arrangement of Phillips is disclosed in a patent which only discloses its use in relation to an interior curtain arrangement, i.e., for an ornamental valence treatment for windows "in residences and commercial building." (See Column 1 lines 13-15 of Phillips.) Since Phillips only discloses the use of the VELCRO attachment arrangement inside a building where the valence is NOT subject to severe atmospheric weather conditions, there is no teaching or suggestion in Phillips or otherwise that such Velcro fasteners would be suitable for use to attach a banner to the exterior façade of

building where such banners are exposed to high winds and other harsh conditions experience by a banner mounted to the exterior of a building.

Therefore, Appellant respectfully submits that the Examiner has failed to make such a showing that there is some teaching or suggestion that would lead one of ordinary skill in the art to make the proposed combination of Hillstrom and Phillips. In fact, the Examiner is improperly relying on the inverse of this requirement (a negative teaching) by justifying the proposed combination of references by stating that "... there is nothing in the description of the fastener of Phillips that would suggest that it is not usable outdoors."

2) IMPROPER HINDSIGHT REFERRAL TO TEACHINGS OF APPELLANT'OWN APPLICATION TO JUSTIFY COMBINATION OF HILLSTROM AND PHILLIPS

In the final rejection of Claims 1, 3 and 6-12 under 35 USC 103(a) as unpatentable over Hillstrom in view of Phillips, the Examiner states that: "... the fastener of Phillips is the same fastener used by Appellant and consequently capable of being used outdoors" and that it would be "obvious to replace the mounting means of Hillstrom with that of Phillips so as to render changing the banner easier," with the "size of the hook and loop strip [being] clearly an obvious design choice depending on the size of the banner."

As previously noted, Hillstrom, at Column 1, lines 20-25, states that the focus of his invention is: "[T]he secure and aesthetic placement of banner-type advertising and message signs on building and wall surfaces is a desired objective today. When the signs are positioned outdoors and subjected to harsh environmental conditions, known devices and systems have frequently proved unreliable." This is particularly true where the banners are adapted to be placed outdoors where they are subjected to high winds and other harsh conditions." (See Column 1, lines 32-34 of Hillstrom.)



Thus, from the teaching of Hillstrom we learn the prior art tells us that known devices or systems for attaching banners have frequently proved unreliable in the exterior application, i.e., when attaching a banner to the exterior of building. Therefore, Hillstrom teaches away from its combination with Phillips (known systems have frequently provided unreliable) so there must be must be some suggestion in the prior art or generally available knowledge that the Velcro attachment arrangement would be suitable for use in such an exterior application.

However, in contradistinction to Hillstrom, Phillips discloses a VELCRO attached arrangement for an ornamental valence treatment for windows "in residences and commercial building." (See Column 1 lines 13-15.) Thus, Phillips only teaches or suggests the use of the VELCRO attachment arrangement inside a building where the valence is NOT subject to severe atmospheric weather conditions including the high winds and other harsh conditions experience by a banner mounted to the exterior of a building. The only place where Velcro is used for the external arrangement is in Appellant's own Application.

However, the Examiner may not refer to Appellant's own Application to find such a teaching or suggestion to use Velcro in an exterior application to make the proposed combination of reference. Thus, it is clear to Appellant that when the Examiner states in the Final Rejection that: "... there is nothing in the description of the fastener of Phillips that would suggest that it is not usable outdoors." the Examiner has not satisfied the burden of showing some teaching or suggestion in the prior art or generally available knowledge to make the proposed combination and clearly the Examiner has engaged in hindsight reasoning to improperly reject Claims 1, 3 and 6-21 under 35 USC 103 over the combination of Hillstrom in view of Phillips.

3) FAILURE TO PROPERLY CONSIDER OR REBUT RULE 132 AFFIDAVIT

The Examiner has failed to properly consider or rebut

Appellant's Rule 132 Affidavit in the final rejection of Claims 1, 3 and 6-21 wherein Appellant has provided evidence that the Phillips reference fails to teach or suggest to one of ordinary skill in the art that Velcro fasteners can be used to attach an external curtain to the exterior façade of a building because exterior curtains are subject to wind and rain forces that do not in anyway effect a curtain located in the interior of a building, as disclosed by Phillips, and that the general opinion in the art is that Velcro would form too weak a bond to effectively hold an exterior curtain to the external façade of a building when harsh environmental conditions such as wind and rain are encountered by an exterior curtain.

In light of the Rule 132 Affidavit and the fact that Hillstrom actually teaches away from the suggested combination with Phillips because Hillstrom notes that "When the signs are positioned outdoors and subjected to harsh environmental conditions, known devices and systems [*such as VELCRO*] have frequently proved unreliable", there is no teaching or suggestion on the record or in the generally available knowledge that would lead one to substitute the Velcro fasteners of Phillips for the heavy duty spring loaded metal frame fastener of Hillstrom.

Thus, the Rule 132 Affidavit rebuts the Examiner's unsupported assertion in the Final Rejection that: "Hillstrom is concerned with providing a changeable system for supporting banners, signs, etc. and if he were looking for a fastener that would render at the banner more easily changeable, he would naturally look to other fabric fastening means and *would not limit himself to only outdoor fastening means* [emphasis added by Appellant]. If an interior fastener were not 'heavy' enough for external applications, merely providing a stronger more durable, etc. version of the fastener, in this case Velcro, would have been obvious."

The Rule 132 Affidavit and the teachings of Hillstrom clearly

teach away from the proposed combination of Hillstrom and Phillips.

4) INVENTION AS A WHOLE AND PROBLEM SOLVED NOT CONSIDERED

As noted in In re Wright, 6 USPQ 2<sup>nd</sup> 1959, 35 USC 103 requires the invention as whole must be considered in making an obviousness determination. In making a determination of obviousness of whether a novel structure is or is not obvious, a recognition of the properties of that structure and the problem that it solves must be viewed in light of the teaching of the prior art. Thus, the question posed, is whether what the Appellant did would have been obvious to one of ordinary skill in the art attempting to solve the problem upon which the inventor was working.

However, the Examiner has failed to consider the invention as a whole by mis-characterizing the problem solved by Appellant's Invention in fantasizing that if "Hillstrom is concerned with providing a changeable system for supporting banners, signs, etc. and if he were looking for a fastener that would render at the banner more easily changeable, he would naturally look to other fabric fastening means and *would not limit himself to only outdoor fastening means* [emphasis added by Appellant]."

However, the teachings of Hillstrom, i.e., that banners and signs positioned outdoors are subjected to harsh environmental conditions and known devices and systems have frequently proved unreliable because they are subjected to high winds and other harsh conditions and Appellant's Rule 132 Affidavit confirming the teachings of Hillstrom make clear that the problem solved by Appellant's Invention is not "easily changeable curtains" but rather the challenge of "manipulating the look, mood and atmosphere of an exterior of a building" (See Page 3 lines 5-9 of Appellant's Substitute Specification.) and the problem of dealing with external weather forces that a curtain on the exterior of a building is subject to.

In that regard, exterior curtains are subject to atmospheric weather conditions, such as high wind and rain forces that do not in any way effect a curtain in the interior of a building. As supported by the Rule 132 Affidavit submitted herewith, the idea that VELCRO™ tape could be effectively used to attach a curtain to the outside of a building is unexpected. In fact, the only place that there is a disclosure of the use of VELCRO to attach a banner to the exterior of the building is Appellant's Application as originally filed.

Thus, there is no suggestion in Hillstrom to substitute the VELCRO holding arrangement for the interior curtain assembly of Phillips for the banner holding device of Hillstrom that uses a spring loaded metal frame device having a channel for holding the banner in place to overcome harsh weather conditions encountered by an external curtain. In fact, as previously noted Hillstrom teaches away from this suggested combination because the banners are adapted to be placed outdoors where they are subjected to high winds and other harsh conditions and interior curtains are not.

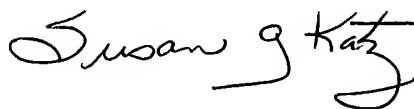
Accordingly, Appellant respectfully submits that the stated rejection is legally incorrect because there is no teaching within the in the prior art or within the generally knowledge of one of ordinary skill in the art that would lead that individual to combine the relevant teachings of Hillstrom and Phillips as suggested by this rejection. That teaching is only found in Appellant's application.

In view of the foregoing, Appellant respectfully submit that the Application is now in a condition for allowance and early notice of the same is earnestly solicited.

Respectfully submitted,

Susan G. Katz

October 17, 2005





**APPENDIX A**  
**CLAIM APPENDIX**

1. A decorative external curtain assembly for applying fabric material to an external facade of a building, the assembly comprising:

a sheet of fabric material;

complementary engageable fastener strips for respectively fastening the fabric material to the external façade of the building; and

an attachment arrangement for attaching one of the complementary engageable fastener strips to the building and another of the complementary engageable fastener strips to the fabric material; and

wherein the complementary engageable fastener strips are made of a pair of strips, one strip having co-acting miniature hooks formed of a relatively rigid filament material and another of the strips having loops also formed of a relatively rigid filament material which engage one another to form a bond between the building and the fabric that is broken by pulling apart the pair of strips; and

wherein the complementary engageable fastener strips fasten the fabric material to the external façade along an entire edge of the fabric material.

3. A decorative external curtain assembly according to Claim 1, wherein the fastener strips are respectively attached to the building by adhesive and to the fabric material by sewing or adhesive.

6. A decorative external curtain assembly according to Claim 1,

wherein the complementary engageable fastener strips fasten more than one edge of the fabric material to the external façade of the building.

7. A decorative external curtain assembly according to Claim 1, wherein the fabric material is made of one of a nature material, a synthetic material and a combination of synthetic and nature materials.

8. A decorative external curtain assembly according to Claim 1, wherein the fabric material forms at least one of: an external curtain, a valance, a flag, a banner, and an advertising display.

9. A decorative external curtain assembly according to Claim 1, wherein external façade of the building is at least one of: a porch, a balcony, an eave, a gable, and a roof line.

10. A decorative external curtain assembly according to Claim 1, wherein the building is at least one of a tent, a commercial structure and a residential structure.

11. A decorative external curtain assembly according to Claim 10, wherein the commercial structure is at least one of a restaurant and a retail store.

12. A decorative external curtain assembly according to Claim 1, wherein the Velcro strip is approximately two inches wide.

13. A system of exterior decoration, the system comprising:  
a building having an external façade;  
at least one decorative external curtain assembly;  
complementary, engageable fastener strips for attaching the decorative external curtain assembly to the external facade of the

attachment means for respectively attaching one of the complementary engageable fastener strips to the decorative external curtain assembly and another of the complementary engageable fastener strips to the external façade of the building.

14. A system according to Claim 13, wherein the decorative external curtain assembly is made of fabric.

15. A system according to Claim 13, wherein the at least one decorative curtain assembly comprises a plurality of decorative curtain assemblies each adapted for display of a different type of motif.

16. A system according to Claim 15 wherein the different type of motifs include: seasonal displays, holiday displays, advertising displays, autumn, winter, summer and spring displays, informational displays and decorative displays.

17. A system according to Claim 14, wherein the fabric material is made of one of a nature material, a synthetic material and a combination of synthetic and nature materials.

18. A system according to Claim 17, wherein the fabric material forms at least one of: an external curtain, a valance, a flag, a banner, and an advertising display.

19. A system according to Claim 13, wherein the external façade of the building is at least one of: a porch, a balcony, an eave, a gable, and a roof line.

20. A system according to Claim 13, wherein the building is at least one of a tent, a commercial structure and a residential

21. A system according to Claim 13, wherein the complementary engageable fastener strips are made of a pair of strips, one strip having co-acting miniature hooks formed of a relatively rigid filament material and another of the strips having loops also formed of a relatively rigid filament material which engage one another to form a bond between the building and the fabric that is broken by pulling apart the pair of strips; and

wherein the complementary engageable fastener strips fasten the fabric material to the external façade along an entire edge of the fabric material.



Application/Control Number 10/647,618

Art Unit:3634

**APPENDIX B**

**RELATED PROCEEDINGS**

**NONE**

Application/Control Number 10/647,618

Art Unit:3634

**APPENDIX C**

**COPIES OF DECISIONS RENDERED BY A COURT IDENTIFIED IN THE RELATED  
APPEALS AND INTERFERENCE SECTION OF THE BRIEF**

to the disposition of the appeal presumption of shared confidences clearly overcome. That is, deeded oral screening of Kallman en firm partner who instructed ore he was hired to refrain from in this litigation, the district "there is a complete lack of ore the court indicating that the en firm was also notified of this ig procedure before Kallman as of counsel" position." [Emphasis

ies, alternatively, that timely im- a of the Chinese Wall is not the rebut the presumption of shared Atasi contends the so-called "ence" is sufficient to rebut the .<sup>6</sup> Under this method screening to rebut the presumption where / switching firms, but not the ers of the firm, agrees not to lences of prior clients with his tes. As with the Chinese Wall, : Ninth Circuit Court of Appeals approved the cone of silence.<sup>7</sup> nth Circuit has yet to approve Wall, which provides more as- inst shared confidences than the ice, we do not now approve the d of rebuttal.

ues Seagate waived its right to mputed disqualification. Atasi *Corp. of Montana v. Piper Air- 701 F.2d 85, 87 (9th Cir. 1983),* osition that a former client may ght to object to counsel of an rty on the ground of conflict of re he knowingly refrains from promptly. However the decision as based on facts substantially

*urs Found. v. Gilbane, Aetna, Fed. F.Supp. 418, 428 (D. Del. 1986)* if-imposed silence by the attorney ns is a more appropriate screening an the Chinese Wall since the mem- al profession should be credited with l of integrity).  
*l States ex rel. Lord Elec. Co. v. Constr. Corp., 637 F.Supp. 1556 . 1986),* the District Court for the rict of Washington held against im- lification. The *Titan* court reasoned Vall was merely one method of rebut- mption of shared confidences. *Id.* at er, the district court below in the l disagreed with the *Titan* court's the ground it did not accurately nd of district court decisions in the t.

different from those in the instant appeal. In *Trust* the attorney switching firms contacted his former client to inform him of the possible conflict. The attorney also provided files to his former client to assist the former client in determining if he wished to object to the representation. The former client promised to contact the attorney if he objected to the representation but he waited two and one-half years before bringing an objection.

In contrast to the facts in *Trust*, the facts in the instant appeal do not indicate an intent by Seagate to waive its right to object to representation of Atasi by the Skjerven firm. Kallman did not contact Seagate to inform it of the possible conflict. Instead Karl Limbach<sup>8</sup> learned of the conflict from a telephone call to Kallman. Seagate did not promise to contact Kallman if Seagate objected to the representation and the motion to disqualify was brought about 6 months after Seagate learned of the conflict. During this 6 months the proceedings and discovery had been stayed and the motion was brought on the same day Atasi moved to lift the stay.

In addition to the facts, we must consider the policies involved. The doctrine of waiver exists as a means to balance the competing policies relevant to imputed disqualification. The policy of preserving the former client's confidences is opposed by the policy of giving the opposing party the freedom of choice of legal counsel. See *Model Rules of Professional Conduct* Official Comments to Rule 1.10. (1983).<sup>9</sup> The doctrine of waiver protects the opposing party's freedom of choice of legal counsel. However waiver should only apply where, on the facts present, the balance of the competing policies weighs in favor of the opposing party's freedom of choice of legal counsel. This occurs particularly when a motion to disqualify is used in an abusive manner as a part of litigation tactics. This occurred in *Trust*. Since the type of abuse present in *Trust* is not present in the instant appeal there is no waiver.

Atasi will undoubtedly suffer in time and expense as a result of the disqualification of the Skjerven firm. This is particularly unfortunate since it is the attorney's actions, not Atasi's, which resulted in the disqualification. It was Kallman and the Skjerven firm,

<sup>8</sup> A partner in the firm of Limbach, Limbach, & Sutton, Seagate's counsel after the Flehr firm withdrew.

<sup>9</sup> The Model Rules have not been adopted by California or the Northern District of California but Rule 1.10 relating to imputed disqualification and the official comments thereto are instructive in the instant appeal.

not Atasi, who knew of the possible conflict.<sup>10</sup> On the former client's side it was Limbach, not Seagate, who first learned of the conflict of interest.

Though Atasi will undoubtedly suffer as a result of the imputed disqualification of the Skjerven firm, that alone is insufficient to prevent the disqualification. Again, there are competing policies affecting the disqualification rule and a balancing is necessary to determine which policy should have priority. Whenever a result is reached by choosing one policy over another the party in favor of the subordinated policy usually suffers. In the instant appeal the policy of preserving the former client's confidences is entitled to priority over the policy of freedom of choice of counsel.

## CONCLUSION

Appellant had the burden of showing an absence of "any sound" basis in the record to support the district court's order. Finding neither legal error nor abuse of discretion in the order of the district court, we affirm.

**AFFIRMED**

Court of Appeals, Federal Circuit

In re Wright

No. 87-1464

Decided May 24, 1988

## PATENTS

### 1. Patentability/Validity — Obviousness — In general (§115.0901)

Patent and Trademark Office erred in denying on grounds of obviousness patent for carpenter's level which had as its primary purpose improved pitch-measuring capability over prior art but which incorporated prior art of internal pin to improve visibility of level bubble, since obviousness determinations under 35 USC 103 must include consideration of invention as whole, including its structure, its properties, and problem it

<sup>10</sup> As part of a settlement agreement in a prior action (*Atasi v. Priam*) the Flehr firm was prohibited from representing Seagate in the instant case. Thus Atasi deprived Seagate from freedom of choice of counsel.

solves, and thus unobviousness of level's structure for its intended purpose is relevant to obviousness determination.

Appeal from Board of Patent Appeals and Interferences' rejection of claims 1 through 8 of patent application, serial no. 399,850, of Randall J. Wright. Reversed.

Robert W. Slater and Jones, Day, Reavis & Pogue (Robert L. Lindgren, on brief), Chicago, Ill., for appellant.

Lee E. Barrett, associate solicitor (Joseph F. Nakamura, solicitor and Fred E. McKelvey, deputy solicitor, on brief), for appellee PTO.

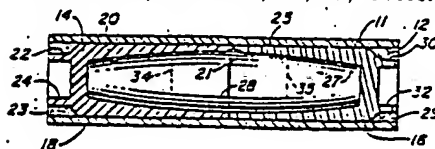
Before Friedman, Newman, and Mayer, circuit judges.  
Newman, J.

The judgment of the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office, rejecting claims 1 through 8 of patent application Serial No. 399,850 of Randall J. Wright for "Level Vial with Extended Pitch Range", is reversed.

### The Invention

Instruments that are commonly called carpenter's levels have long been known. They used small liquid-filled transparent vials with an entrained gas bubble; the vials function by gravity, the bubble automatically seeking the highest point within the vial. The vial is attached to a support, such that when the surface on which the support is placed is level, the bubble is centered. Thus, the position of the bubble shows the orientation of the vial and of the support.

Levels in common use today are made from barrel-shaped vials, mounted so that the bubble may be viewed from either side of the vial. An example of a barrel-shaped vial set in a molded plastic housing is shown in Vaida U.S. Patent No. 3,871,109, of record:



These levels of the prior art are limited in their pitch measuring<sup>1</sup> capability because of the limited amount of curvature that can be formed in the molded barrel vial shape.

<sup>1</sup> The pitch is the degree to which a given surface is not level. "Pitch" vials measure a range of pitch angles.

The Wright invention is a level-measuring instrument that has an increased range of pitch measurement capability, yet retains the advantages of the barrel vials of the prior art. Claim 1 is representative:

1. A level vial comprising a body having a bore formed with a barrel shaped portion having opposed ends and wherein the barrel curvature is defined by a first radius of curvature,

the barrel shaped portion of the bore having a cross-sectional dimension generally decreasing from the center thereof in axially opposed directions towards the ends thereof,

an axially elongated core member disposed within the bore and between the opposed ends thereof in coaxial relationship with the barrel shaped portion of the body and having a maximum cross-sectional dimension and having a second radius of curvature exceeding that of the first radius of curvature of the barrel shaped bore portion,

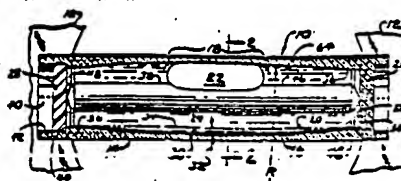
a quantity of fluid disposed within the bore and being insufficient to fill the bore and to provide a bubble therein having a dimension sufficient to simultaneously contact the surfaces of the barrel shaped bore portion and the core member,

means for hermetically sealing the bore to contain the fluid and to maintain the bubble therein,

the vial body having a transparent portion and indicator means associated therewith to permit visual bubble observation and for indicating preselected positions of the bubble in the vial

and wherein the surfaces of the barrel shaped bore portion and the core member coact with the bubble to produce gradual bubble movement axially within the barrel shaped bore portion without abrupt bubble acceleration and while providing a wide range of visually observable angular measures.

The Wright structure is illustrated as follows:

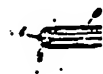


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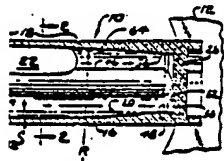
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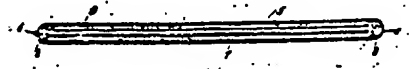
According to the Wright disclosure, by combining a core pin (46) and a barrel vial (14), the indicator bubble (22) does not move as far along the barrel with a given change in pitch, compared with the barrel vials of the prior art. Wright illustrates this phenomenon in his specification (showing a pitch change of 3/8 inch per 12 inches):



Thus the Wright level can measure greater changes of pitch before the bubble reaches the end of the vial.

### The Rejection

The Board agreed with Wright that his claimed combination was new. However, because it was known to place a core pin in a cylindrical vial in order to increase the visibility of the bubble, as shown in Bishop U.S. Patent No. 771,803:



the Board held that it would have been obvious to construct a level having a core pin in the barrel-shaped vial of Vaida, irrespective of the purpose. The Commissioner on appeal argued that the Bishop and Vaida references presented, in combination, a prima facie case of unpatentability, stating:

[A] claimed invention may be unpatentable if it would have been obvious for reasons suggested by the prior art, even though those reasons may be different from the reasons relied upon by the inventor and may result in a different advantage.

The PTO position is that since it would have been obvious to make the Wright combination in order to improve visibility of the bubble, it is immaterial that Wright's combination improves pitch measurement.

### Discussion

The Commissioner argues that if it is obvious to combine the teachings of prior art references for any purpose, they may be combined in order to defeat patentability of the applicant's admittedly new structure.

The PTO states that "a claimed invention may be unpatentable if it would have been obvious for reasons suggested by the prior art, even though those reasons may be different from the reasons relied upon by the inventor and may result in a different advantage." The PTO position is that it is irrelevant that Wright's structure was for a purpose, and has properties, that are neither obtainable from the prior art structures, nor suggested in the prior art. In this lies the PTO's error.

We repeat the mandate of 35 U.S.C. §103: it is the invention as a whole that must be considered in obviousness determinations. The invention as a whole embraces the structure, its properties, and the problem it solves. See, e.g., *Cable Electric Products, Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1025, 226 USPQ 881, 886 (Fed. Cir. 1985) ("In evaluating obviousness, the hypothetical person of ordinary skill in the pertinent art is presumed to have the 'ability to select and utilize knowledge from other arts reasonably pertinent to [the] particular problem' to which the invention is directed"), quoting *In re Antle*, 444 F.2d 1168, 1171-72, 170 USPQ 285, 287-88 (CCPA 1971); *In re Antonie*, 559 F.2d 618, 619, 195 USPQ 6, 8 (CCPA 1977) ("In delineating the invention as a whole, we look not only to the subject matter which is literally recited in the claim in question . . . but also to those properties of the subject matter which are inherent in the subject matter and are disclosed in the specification") (emphasis in original).

The determination of whether a novel structure is or is not "obvious" requires cognizance of the properties of that structure and the problem which it solves, viewed in light of the teachings of the prior art. See, e.g., *In re Rinehart*, 531 F.2d 1048, 1054, 189 USPQ 143, 149 (CCPA 1976) (the particular problem facing the inventor must be considered in determining obviousness); see also *Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick Co.*, 730 F.2d 1452, 1462, 221 USPQ 481, 488 (Fed. Cir. 1984) (it is error to focus "solely on the product created, rather than on the obviousness or nonobviousness of its creation") (quoting *General Motors Corp. v. U.S. Int'l Trade Comm'n*, 687 F.2d 476, 483, 215 USPQ 484, 489 (CCPA 1982), cert. denied, 459 U.S. 1105 (1983)).

Thus the question is whether what the inventor did would have been obvious to one of ordinary skill in the art attempting to solve the problem upon which the inventor was working. *Rinehart*, 531 F.2d at 1054, 189 USPQ at 149; see also *In re Benno*, 768 F.2d 1340, 1346, 226 USPQ 683, 687 (Fed. Cir.

1985) ("appellant's problem" and the prior art "present different problems requiring different solutions").

[1] The problem upon which Wright was working was improving the pitch-measuring capability of the level, not the visibility of the bubble. The PTO, having conceded that Wright's structure was unobvious for his intended purpose, erred in holding that this was not relevant. The problem solved by the invention is always relevant. The entirety of a claimed invention, including the combination viewed as a whole, the elements thereof, and the properties and purpose of the invention, must be considered.

Factors including unexpected results, new features, solution of a different problem, novel properties, are all considerations in the determination of obviousness in terms of 35 U.S.C. §103. When such factors are described in the specification they are weighed in determining, in the first instance, whether the prior art presents a prima facie case of obviousness. See, e.g., *In re Margolis*, 785 F.2d 1029, 1031, 228 USPQ 940, 942 (Fed. Cir. 1986) (comparative data in the specification must be considered in PTO determination of unexpected results, as part of 'the entire body of evidence ... which must be weighed in the first instance by the PTO.') When such factors are brought out in prosecution before the PTO, they are considered in determining whether a prima facie case, if made based on the prior art, has been rebutted. See, e.g., *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 789 (Fed. Cir. 1984) (rebuttal evidence is considered along with all other evidence of record). In either case, the requisite view of the whole invention mandates consideration of not only its structure but also its properties and the problem solved.

Applicant Wright agrees that he has combined old elements. The Commissioner agrees that Wright has achieved a new combination, and that the result obtained thereby is not suggested in the references. The patentability of such combinations is of ancient authority. See, e.g., *Prouty v. Draper*, 41 U.S. (16 Pet.) 336, 341 (1842); *Eames v. Godfrey*, 68 U.S. (1 Wall.) 78, 79-80 (1863); *Gill v. Wells*, 89 U.S. (22 Wall.) 1, 25 (1874); see also H.T. Markey, *Why Not the Statute?*, 65 J. Pat. Off. Soc'y 331, 333-34 (1983) ("virtually all inventions are 'combinations', and ... every invention is formed of 'old elements'.... Only God works from nothing. Man must work with old elements").

The PTO position that the claimed structure is prima facie obvious is not supported by the cited references. No reference shows

or suggests that properties and results of Wright's claimed structure, or suggests the claimed combination as a solution to the problem of increasing pitch measurement capacity. It is not pertinent whether Wright's new structure also has the prior art attribute of increased visibility of the bubble, for that is not his invention.

The Commissioner on appeal defends the fact that the Board and the examiner never reached this analysis. The Board relied on *In re Wiseman*, 596 F.2d 1019, 201 USPQ 658 (CCPA 1979), to support the Board's statement:

If the claimed subject matter would have been obvious from the references, it is immaterial that the references do not state the problem or advantages ascribed thereto by appellant.

*Wiseman* does not support the generalization that the Board attributes to it. In *Wiseman* the prior art reference showed a similar problem and suggested a similar solution to that of the applicant. Specifically, the prior art showed a disc brake having grooves for the purpose of venting dust generated during use; the applicant showed a disc brake having grooves for the purpose of venting steam generated during use. The applicant asserted no results or properties that were not fairly suggested by the prior art. The court's discussion in *Wiseman* must be viewed in context, and as with all section 103 decisions, judgment must be brought to bear based on the facts of each case.

#### Conclusion

The rejection of claims 1 through 8 was in error. The Board's decision is  
**REVERSED**

District Court, M.D. North Carolina

Yates-American Machine Co. Inc. v.  
Newman Machine Co. Inc.

No. C-86-958-G

Decided February 22, 1988

#### PATENTS

1. Practice and procedure in U.S. Patent and Trademark Office — Re-issue — In general (§110.1301)

#### JUDICIAL PRACTICE AND PROCEDURE

Procedure — Motions (§410.31)

Stay of suit seeking declaration of non-infringement, invalidity, and/or unenforceability

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present. For these reasons, the court adopts the modified jurisdiction test.<sup>1</sup>

[2] The court determines, without hesitation, that Turbo Tek has the continuous and systematic contacts with North Carolina necessary to support general jurisdiction and thus venue. In the last year, Turbo Tek has sold in North Carolina 30,570 of its pressure washers, 24,720 bottles of soft suds, 7,164 bottles of hard suds, 81,678 bottles of exploding wax, and 864 unspecified products. North Carolina accounts for 3.6% of Turbo Tek's total sales, yielding Turbo Tek over \$300,000.00 in the last year. Turbo Tek transports these goods directly from its facilities in California to its customers in North Carolina. In addition, Turbo Tek has a sales representative who permanently resides in North Carolina and solicits sales throughout the state. Turbo Tek's Vice

President has, on at least one occasion, visited customers within North Carolina. Furthermore, Turbo Tek has run television advertisements on seventeen local television stations in North Carolina. Finally, Turbo Tek operates a mail order business, under the name Distribution Systems International, that has received and honored mail orders from North Carolinians. The court, accordingly, concludes that under the modified jurisdiction test Turbo Tek is "doing business" in North Carolina, thereby establishing venue under §1391(c).<sup>2</sup>

### CONCLUSION

The court concludes that plaintiff complied with Fed.R.Civ.P. 4(c)(2)(C)(ii) in personally serving defendant, outside the forum state, with notice of this action. The court further concludes that defendant is "doing business" in North Carolina and thus venue is proper under 28 U.S.C. §1391(c). The court, accordingly, denies defendant's motion to dismiss.

### Court of Appeals, Federal Circuit

In re Fine

No. 87-1319

Decided January 26, 1988

### PATENTS

#### 1. Patentability/Validity — Obviousness — Evidence of (§115.0903)

Patent and Trademark Office improperly rejected claimed invention for obviousness since nothing in cited references, either alone or in combination, suggests or teaches claimed invention, since there is consequently no support for PTO's conclusion that substitution of one type of detector for another in prior art system, resulting in claimed invention, would have been obvious, and since PTO therefore failed to satisfy its burden of establishing prima facie case of obviousness by showing some objective teaching or gen-

ally available knowledge that would lead one skilled in art to combine teachings of existing references.

#### 2. Patentability/Validity — Obviousness — In general (§115.0901)

Obviousness is tested by what combined teachings of prior art references would have suggested to those of ordinary skill in art, not by whether particular combination of elements from such references might have been "obvious to try."

#### 3. Patentability/Validity — Obviousness — Evidence of (§115.0903)

Patent and Trademark Office erred, in rejecting as obvious system for detecting and measuring minute quantities of nitrogen compounds, by failing to recognize that appealed claims can be distinguished over combination of prior art references, in view of evidence demonstrating that prior art does not teach claimed temperature range, despite some overlap of preferred temperature ranges for claimed invention and prior art, since purposes of preferred temperature ranges are different and overlap is mere happenstance.

#### 4. Patentability/Validity — Obviousness — In general (§115.0901)

Dependent claims are non-obvious under 35 USC 103 if claims from which they depend are non-obvious.

Appeal from the U.S. Patent and Trademark Office Board of Patent Appeals and Interferences.

Application for patent by David H. Fine, Serial No. 512,374, From decision of Board of Patent Appeals and Interferences affirming rejection of application, applicant appeals. Reversed; Smith, circuit judge, dissenting with opinion.

Morris Relson and Darby & Darby, New York, N.Y., (Beverly B. Goodwin with them on the brief) for appellant.

Lee E. Barrett, associate solicitor, Arlington, Va., (Joseph F. Nuccamura, solicitor, and Fred E. McKelvey, deputy solicitor, with him on the brief) for appellee.

Before Friedman, Smith, and Mayer, circuit judges.

Mayer, J.

David H. Fine appeals from a decision of the Board of Patent Appeals and Inter-

ferences of the United States Patent and Trademark Office (Board) affirming the rejection of certain claims of his application, Serial No. 512,374, and concluding that his invention would have been obvious to one of ordinary skill in the art and was therefore unpatentable under 35 U.S.C. §103. We reverse.

### Background

#### A. The Invention.

The invention claimed is a system for detecting and measuring minute quantities of nitrogen compounds. According to Fine, the system has the ability to detect the presence of nitrogen compounds in quantities as minute as one part in one billion, and is an effective means to detect drugs and explosives, which emanate nitrogen compound vapors even when they are concealed in luggage and closed containers.

The claimed invention has three major components: (1) a gas chromatograph which separates a gaseous sample into its constituent parts; (2) a converter which converts the nitrogen compound effluent output of the chromatograph into nitric oxide in a hot, oxygen-rich environment; and (3) a detector for measuring the level of nitric oxide. The claimed invention's sensitivity is achieved by combining nitric oxide with ozone to produce nitrogen dioxide which concurrently causes a detectable luminescence. The luminescence, which is measured by a visual detector, shows the level of nitric oxide which in turn is a measure of nitrogen compounds found in the sample.

The appealed claims were rejected by the Patent and Trademark Office (PTO) under 35 U.S.C. §103. Claims 60, 63, 77 and 80 were rejected as unpatentable over Eads, Patent No. 3,650,696 (Eads) in view of Warnick, et al., Patent No. 3,746,513 (Warnick). Claims 62, 68, 69, 79, 85 and 86 were rejected as unpatentable over Eads and Warnick in view of Glass, et al., Patent No. 3,207,585 (Glass).

#### B. The Prior Art.

1. *Eads Patent.* Eads discloses a method for separating, identifying and quantitatively monitoring sulfur compounds. The Eads system is used primarily in "air pollution control work in the scientific characterization of odors from sulfur compounds."

The problem addressed by Eads is the tendency of sulfur compounds "to adhere to or react with the surface materials of the sampling and analytical equipment," and/or react with the liquid or gaseous materials in the equipment." Because of this, the accu-

<sup>1</sup> Because the court finds venue proper under §1391(c), it will not address whether the claims herein arose in North Carolina. See 28 U.S.C. §1391(b).



cy of measurement is impaired. To solve the problem, the Eads system collects an air sample containing sulfur compounds in a sulfur-free methanol solution. The liquid is inserted into a gas chromatograph which separates the various sulfur compounds. The compounds are next sent through a pyrolysis furnace where they are oxidized to form sulfur dioxide. Finally, the sulfur dioxide passes through a measuring device called a microcoulometer which uses titration cells to calculate the concentration of sulfur compounds in the sample.

### 2. Warnick Patent.

Warnick is directed to a means for detecting the quantity of pollutants in the atmosphere. By measuring the chemiluminescence of the reaction between nitric oxide and ozone, the Warnick device can detect the concentration of nitric oxide in a sample gaseous mixture.

Warnick calls for "continuously flowing" a sample gaseous mixture and a reactant containing ozone into a reaction chamber. The chemiluminescence from the resulting reaction is transmitted through a light-transmitting element to produce continuous readouts of the total amount of nitric oxide present in the sample.

### 3. Glass Patent.

The invention disclosed in Glass is a device for "completely burning a measured amount of a substance and analyzing the combustion products." A fixed amount of a liquid petroleum sample and oxygen are supplied to a flame. The flame is then spark-ignited, causing the sample to burn. The resulting combustion products are then collected and measured, and from this measurement the hydrogen concentration in the sample is computed.

### C. The Rejection.

The Examiner rejected claims 60, 63, 77 and 80 because "substitution of the [nitric oxide] detector of Warnick for the sulfur detector of Eads would be an obvious consideration if interested in nitrogen compounds, and would yield the claimed invention." He further asserted that "Eads teaches the [claimed] combination of chromatograph, combustion, and detection, in that order.... Substitution of detectors to measure any component of interest is well within the skill of the art." In rejecting claims 62, 68, 69, 79, 85 and 86, the Examiner said, "Glass et al. teach a flame conversion means followed by a detector, and substitution of the flame conversion means of Glass et al. for the furnace of Eads would be an obvious equivalent, and would yield the claimed invention." The Board affirmed the Examiner's rejection.

### Discussion

#### A. Standard of Review.

Obviousness under 35 U.S.C. §103 is "a legal conclusion based on factual evidence." *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, F.2d 1530, 1535, 218 USPQ 871, 876 (Fed. Cir. 1983) (quoting *Stevens v. In'tl Trade Comm'n*, 612 F.2d 546, 549, 204 USPQ 276, 279 (CCPA 1979)). Therefore, an obviousness determination is not reviewed under the clearly erroneous standard applicable to fact findings. *Raytheon Co. v. Roper Corp.*, 724 F.2d 951, 956, 220 USPQ 592, 596 (Fed. Cir. 1983). It is "reviewed for correctness or error as a matter of law." *In re De Blauwe*, 736 F.2d 699, 703, 222 USPQ 191, 195 (Fed. Cir. 1984).

To reach a proper conclusion under §103, the decisionmaker must step backward in time and into the shoes worn by [a person having ordinary skill in the art] when the invention was unknown and just before it was made. In light of all the evidence, the decisionmaker must then determine whether... the claimed invention as a whole would have been obvious at that time to that person. 35 U.S.C. §103. The answer to that question partakes more of the nature of law than of fact, for it is an ultimate conclusion based on a foundation formed of all the probative facts.

*Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1566, 1 USPQ2d 1593, 1595-96 (Fed. Cir. 1987).

#### B. Prima Facie Obviousness.

Fine says the PTO has not established a *prima facie* case of obviousness. He contends the references applied by the Board and Examiner were improperly combined, using hindsight reconstruction, without evidence to support the combination and in the face of contrary teachings in the prior art. He argues that the appealed claims were rejected because the PTO thought it would have been "obvious to try" the claimed invention, an unacceptable basis for rejection.

[1] We agree. The PTO has the burden under section 103 to establish a *prima facie* case of obviousness. See *In re Plasecki*, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-87 (Fed. Cir. 1984). It can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. *In re Latta*, 747 F.2d 703, 705, 223 USPQ 1257, 1258 (Fed. Cir. 1984); see also *Ashtland Oil, Inc. v. Delta Resins & Refractories, Inc.*,

776 F.2d 281, 297 n.24, 227 USPQ 657, 667 n.24 (Fed. Cir. 1985); *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). This it has not done. The Board points to nothing in the cited references, either alone or in combination, suggesting or teaching Fine's invention.

The primary basis for the Board's affirmation of the Examiner's rejection was that it would have been obvious to substitute the Warnick nitric oxide detector for the Eads sulfur dioxide detector in the Eads system. The Board reiterated the Examiner's bald assertion that "substitution of one type of detector for another in the system of Eads would have been within the skill of the art," but neither of them offered any support for or explanation of this conclusion.

Eads is limited to the analysis of sulfur compounds. The particular problem addressed there is the difficulty of obtaining precise measurements of sulfur compounds because of the tendency of sulfur dioxide to adhere to or react with the sampling analytic equipment or the liquid or gaseous materials in the equipment. It solves this problem by suggesting that the gaseous sample containing sulfur compounds be absorbed into sulfur-free methanol and then inserted into a gas chromatograph to separate the sulfur compounds.

There is no suggestion in Eads, which focuses on the unique difficulties inherent in the measurement of sulfur, to use that arrangement to detect nitrogen compounds. In fact, Eads says that the presence of nitrogen is undesirable because the concentration of the titration cell components in the sulfur detector is adversely affected by substantial amounts of nitrogen compounds in the sample. So, instead of suggesting that the system be used to detect nitrogen compounds, Eads deliberately seeks to avoid them; it warns against rather than teaches Fine's invention. See *W. L. Gore & Assoc. v. Garlock, Inc.*, 721 F.2d 1540, 1550, 220 USPQ 303, 311 (Fed. Cir. 1983) (error to find obviousness where references "diverge from and teach away from the invention at hand"). In the face of this, one skilled in the art would not be expected to combine a nitrogen-related detector with the Eads system. Accordingly, there is no suggestion to combine Eads and Warnick.

Likewise, the teachings of Warnick are inconsistent with the claimed invention, to some extent. The Warnick claims are directed to a gas stream from engine exhaust "continuously flowing the gaseous mixtures into the reaction chamber" to obtain "con-

tinuous readouts" of the amount of nitric oxide in the sample. The other words, it contemplates measuring the total amount of nitric oxide in a continuously flowing gaseous mixture of unseparated nitrogen constituents. By contrast, in Fine each nitrogen compound constituent of the gaseous sample is retained in the Chromatograph for an individual time period so that each exits in discrete, time-separated pulses.\* By this process, each constituent may be both identified by its position in time sequence, and measured. The claimed system, therefore, diverges from Warnick and teaches advantages not appreciated or contemplated by it. Because neither Warnick nor Eads, alone or in combination, suggests the claimed invention, the Board erred in affirming the Examiner's conclusion that it would have been obvious to substitute the Warnick nitric oxide detector for the Eads sulfur dioxide detector in the Eads system. *ACS Hosp. Sys.*, 732 F.2d at 1575-77, 221 USPQ at 931-33. The Eads and Warnick references disclose, at most, that one skilled in the art might find it obvious to try the claimed invention. But whether a particular combination might be "obvious to try" is not a legitimate test of patentability. *In re Geiger*, 815 F.2d 868, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987); *In re Goodwin*, 576 F.2d 375, 377, 198 USPQ 1, 3 (CCPA 1978).

[2] Obviousness is tested by "what the combined teachings of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). But it "cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." *ACS Hosp. Sys.*, 732 F.2d at 1577, 221 USPQ at 933. And "teachings of references can be combined only if there is some suggestion or incentive to do so." *Id.* Here, the prior art contains none.

Instead, the Examiner relies on hindsight in reaching his obviousness determination.

\* The Solicitor argues that the contents of Attachment C of Fine's brief were not before the Board and may not properly be considered here. However, we need not rely on Attachment C. It is merely illustrative of the qualitative separation of nitrogen compounds which occurs in Fine's system. The fact that the various constituents exit at discrete intervals is shown by the specification which was before the Board and which may appropriately be considered on appeal. See, e.g., *Ashtland Oil, Inc. v. United States Int'l Trade Comm'n*, 629 F.2d 682, 686, 207 USPQ 1, 5 (CCPA 1980) (claims must be construed in light of specification).



But this court has said, "To impute one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher." *W.L. Gore, 721 F.2d at 1553, 220 USPQ at 312-13*. It is essential that "the decisionmaker forget what he or she has been taught at trial about the claimed invention and cast the mind back to the time the invention was made . . . to occupy the mind of one skilled in the art who is presented only with the references, and who is normally guided by the then-accepted wisdom in the art." *Id.* One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to predate the claimed invention.

#### C. Advantage Not Appreciated by the Prior Art.

[3] The Board erred not only in improperly combining the Eads and Warnick references but also in failing to appreciate that the appealed claims can be distinguished over that combination. A material limitation of the claimed system is that the conversion to nitric oxide occur in the range of 600°C to 1700°C. The purpose of this limitation is to prevent nitrogen from other sources, such as the air, from being converted to nitric oxide and thereby distorting the measurement of nitric oxide derived from the nitrogen compounds of the sample.

The claimed nitric oxide conversion temperature is not disclosed in Warnick. Although Eads describes a preferred temperature of 675°C to 725°C, the purpose of this range is different from that of Fine. Eads requires the 675°C to 725°C range because it affords a temperature low enough to avoid formation of unwanted sulfur trioxide, yet high enough to avoid formation of unwanted sulfides. Fine's temperature range, in contrast, does not seek to avoid the formation of sulfur compounds or even nitrogen compounds. It enables the system to break down the nitrogen compounds of the sample while avoiding the destruction of background nitrogen gas. There is a partial overlap, of course, but this is mere happenstance. Because the purposes of the two temperature ranges are entirely unrelated, Eads does not teach use of the claimed range. See *In re Geiger, 815 F.2d at 688, 2 USPQ2d at 1278*. The Board erred by concluding otherwise.

#### D. Unexpected Results.

Because we reverse for failure to establish a *prima facie* case of obviousness, we need not reach Fine's contention that the Board

failed to accord proper weight to the objective evidence of unexpected superior results. *Id.*

#### E. The "Flame" Claims.

[4] Claims 62, 68, 69, 79, 85 and 86 relate to the oxygen-rich flame conversion means of the claimed invention. These "flame" claims depend from either apparatus claim 60 or method claim 77. Dependent claims are non-obvious under section 103 if the independent claims from which they depend are non-obvious. *Hartness Int'l, Inc. v. Simplmatic Eng'g Co., 819 F.2d 1100, 1108, 2 USPQ2d 1826, 1831 (Fed. Cir. 1987); In re Abele, 684 F.2d 902, 910, 214 USPQ 682, 689 (CCPA 1982); see also In re Sennaker, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed. Cir. 1983).* In view of our conclusion that claims 60 and 77 are nonobvious, the dependent "flame" claims are also patentable.

#### Conclusion

The Board's decision affirming the Examiner's rejection of claims 60, 62, 63, 68, 69, 77, 79, 80, 85 and 86 of Fine's application as unpatentable over the prior art under 35 U.S.C. §103 is REVERSED.

#### Smith, circuit judge, dissenting.

I respectfully dissent. I am of the firm belief that the prior art references, relied upon by the PTO to establish its *prima facie* case of obviousness, in combination teach and suggest Fine's invention to one skilled in the art. Also, I firmly believe that Fine failed to rebut the PTO's *prima facie* case. On this basis, I would affirm the board's determination sustaining the examiner's rejection, pursuant to 35 U.S.C. §103, of Fine's claims on appeal before this court.

#### Court of Appeals, Federal Circuit

Advance Transformer Co. v. Levinson

No. 87-1011

Decided January 28, 1988

#### PATENTS

##### 1. Infringement — Construction of claims (§115.03)

Patent construction — Patent Office proceedings (§125.05)

Patent construction — Prosecution history estoppel (§125.09)

Federal district court, in action for declaration of non-infringement of patent, proper-

ly placed controlling reliance on defendant's representations to Patent and Trademark Office that defendant's claims and prior patent did not describe same or overlapping inventions, and thus court did not err in determining that plaintiff's device, which employs same circuitry as prior patent, does not infringe defendant's patent.

##### 2. Patent construction — Patent Office proceedings — (§125.05)

#### JUDICIAL PRACTICE AND PROCEDURE

##### Procedure — Evidence — In general (§410.3701)

Federal district court, in deciding whether to declare interference under 35 USC 291, properly considered evidence demonstrating that defendant made no attempt to provoke interference during pendency of his applications and demonstrating that Patent and Trademark Office had not declared interference, and properly considered whether claims of respective patents "cross-read" on each other, and therefore court's conclusions that patents do not claim same subject matter and that interference should not be declared were not erroneous.

##### 3. Procedure — Moot controversies (§410.12)

Appellate court's determination that patent was not infringed renders moot dispute as to patent's validity, and federal district court's holding that patent is invalid is therefore vacated.

#### REMEDIES

##### 4. Monetary remedies — Attorney's fees; costs — Patents (§510.0905)

Federal district court erred by assessing attorney's fees against defendant in action seeking declaratory judgment of invalidity and non-infringement, since defendant was not shown to have acted in bad faith or fraudulently, since defendant litigated all pertinent issues, since defendant's position on merits was not totally without substance, and since defendant's patents were presumptively valid.

##### Particular patents — Electrical — Control circuits

3,792,369, Levinson, variable reactance controls for AC powered heating magnets, holding of invalidity vacated, holding of non-infringement affirmed.

##### Particular patents — Electrical — Power supply circuits

3,876,956, Levinson, regulated power supply circuit for a heating magnetron, holding of invalidity vacated, holding of non-infringement affirmed.

Appeal from the U.S. District Court for the Northern District of Illinois, McGarr, J.; 231 USPQ 1.

Action by Advance Transformer Co. against Melvin L. Levinson, seeking declaration of invalidity and non-infringement of patents, and counterclaim by Levinson for patent infringement and declaration of interference under 35 USC 291. From decision holding patents invalid and not infringing, refusing to declare interference, and awarding attorney's fees to plaintiff, defendant Levinson appeals. Holding of invalidity vacated, holding of non-infringement affirmed, and award of attorney's fees reversed.

James T. Williams and Neuman, Williams, Anderson & Olson (Theodore W. Anderson and Todd P. Blakely with them on the brief), Chicago, Ill., for plaintiff-appellee.

Harry B. Keck (Thomas H. Murray with him on the brief), Pittsburgh, Pa., for defendant-appellant.

Before Re, \* chief judge, and Newman and Bissell, circuit judges.

Newman, J.

Melvin L. Levinson appeals the judgment of the United States District Court for the Northern District of Illinois, which held invalid and not infringing his United States Patents Nos. 3,876,956 and 3,792,369, refused to declare an interference under 35 U.S.C. §291, and awarded attorney fees to the declaratory plaintiff Advance Transformer Co.<sup>1</sup>

We affirm the judgments of noninfringement of United States Patents No. 3,876,956 and No. 3,792,369, and vacate the judgments of invalidity with respect to both patents. The refusal to declare an interference is

\* The Honorable Edward D. Re, Chief Judge, United States Court of International Trade, sitting by designation pursuant to 28 U.S.C. §293(a).

<sup>1</sup> Advance Transformer Co. v. Levinson, 231 USPQ 1 (N.D. Ill. 1986).

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